IN THE CLAIMS:

1. (Currently Amended) Mixer circuit comprising:

[[-]] a down-conversion mixing component arranged for down-converting an input radio frequency signal; and

[[-]] an active mixer load circuit connected to output terminals of said down-conversion mixing component, wherein said active mixer load circuit includes an active mixer load and modulator arranged for modulating a flicker noise produced by said active mixer load away from a signal band of a signal output by said down-conversion mixing component .

2. (Previously Presented) Mixer circuit according to claim 1, wherein said modulator includes a plurality of switching elements .

3. (Previously Presented) Mixer circuit according to claim 2, wherein said active mixer load includes a first transistor, a second transistor and an operational amplifier, wherein a first output terminal of said down-conversion mixing component is connected to a first input of said operational amplifier, wherein a second output terminal of said down-conversion mixing component is connected to a second input of said operational amplifier, wherein a reference common mode voltage is applied to a reference common mode voltage input of said operational amplifier, wherein an output of said operational amplifier is connected in parallel to a respective gate of said first transistor and said second transistor , and wherein said switching elements are arranged for connecting alternately on the one hand said first output terminal of said down-conversion mixing component via said first transistor and said second output terminal of said down-conversion mixing component via said second transistor to ground, and on the other hand said first output terminal of said down-conversion mixing component via said second transistor and said second output terminal of said down-conversion mixing component via said first transistor to ground .

4. (Previously Presented) Mixer circuit according to claim 1, wherein said down-conversion mixing component is adapted to down-convert radio frequency current mode signals.

5. (Previously Presented) Mixer circuit according to claim 1, wherein said down-conversion mixing component is adapted to down-convert radio frequency voltage mode signals.

6. (Previously Presented) Receiver circuit for receiving radio frequency signals and for providing corresponding down-converted signals, which receiver circuit comprises a mixer circuit according to claim 1.

7. (Previously Presented) Receiver circuit according to claim 6, wherein at least said mixing circuit and at least one component of said receiver circuit arranged for processing digital baseband signals are integrated in a single chip .

8. (Previously Presented) Chip comprising at least a mixer circuit according to claim 1.

9. (Previously Presented) Chip according to claim 8, wherein said mixer circuit is implemented on said chip with a deep sub-micron semiconductor technology.

10. (Previously Presented) Apparatus comprising a mixer circuit according to claim 1.

11. (Currently Amended) Method for use in a mixer circuit comprising a down-conversion mixing component and an active mixer load circuit , said method comprising:

[[-]]down-converting a received radio frequency signal by means of said down-conversion mixing component ;

[[-]]controlling an output voltage of said down-conversion mixing component by means of an active mixer load of said active mixer load circuit ; and

[[-]]modulating a flicker noise produced by said active mixer load away from a signal band of said down-converted radio frequency signal.

12. (Previously Presented) Apparatus, comprising:

means for down-converting an input radio frequency signal; and

active mixer load means and modulating means connected to output terminals of said means for down-converting for modulating a flicker noise produced by said active mixer load means away from a signal band of a signal output by said means for down-converting.